

Serial No. 09/844268

Atty. Docket No. 21419/91513

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**REMARKS****I. Status of the Claims**

Claims 1, 3, 5, and 8-11 were previously canceled.

Claims 2, 4, 6 and 7 are amended.

Claims 2, 4, 6, and 7 are pending.

**II. Pending Claims Overcome 35 U.S.C. §112 second paragraph rejections**

The examiner objected to the clarity of claims 2, 6, and 7. Applicants have amended claims 2, 4, 6, and 7 in accordance with the Revised Written Description Guidelines, pp. 28-35, (1999).

Amended claim 2 is directed to an isolated DNA molecule having a nucleotide sequence that includes SEQ ID NO: 12, wherein an adenine base is in nucleotide position 307 of the open reading frame instead of guanine.

Amended claim 6 requires the presence of a thymine base in nucleotide position 229 of SEQ ID NO: 12, instead of a cytosine.

Amended claim 7 is directed to a fragment of the isolated DNA molecule of claim 2 and that the fragment includes a nucleotide sequence that distinguishes a polymorphism in *E. coli* F18 colonization resistant swine from sensitive swine. For example, a nucleic acid fragment that distinguishes the G307A polymorphism is within the scope of the claim.

The amended claims are in compliance with the USPTO's Revised Written Description Guidelines. Applicants request withdrawal of the §112 rejections.

**III. Pending Claims are novel over Larsen et al.**

The examiner rejected claims 4 and 7 under 35 U.S.C §102(b) as being anticipated by Larsen et al.(1990) as evidenced by Meijerink et al., 1997.

The Office Action, on page 4, reports that "Larsen et al. teach the isolation of a cDNA encoding human FUT1...". Claims 4 and 7 relate to SEQ ID NO: 12, which is not a human FUT1 sequence. Larsen does not teach SEQ ID NO: 12. Meijerink et al., (1997), published after the priority date of the present application, provides a comparison of human FUT1 and porcine sequences. Until the priority date of the present application, porcine FUT1 sequences were not known and thus it is improper to rely on a later published reference (Meijerink et al.) to assume

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that the "human sequence could be used as a basis of comparison and represents fragments of sequences that could be used as a [sic] primers to evaluate SEQ ID NO: 12."

Larsen *et al.* does not teach all the elements of claims 4 and 7, and therefore applicants request withdrawal of the §102(b) rejection.

**IV. Pending Claims are novel over Brennan (U.S. Pat. No. 5,474,796).**

The examiner rejected claims 2, 4, 6 and 7 under 35 U.S.C §102(b) as being anticipated by Brennan (U.S. Pat. No. 5,474,796).

Brennan relates to apparatus and methods for making arrays of functionalized binding sites on a support surface and does not teach all the elements of claims 2, 4, 6 and 7. The examiner acknowledges that "while there is not a specific disclosure of SEQ ID NO: 12, nor one the [sic] has an adenine or thymine substitution..." (page 5, Action), but adopts an unreasonable interpretation of the claims to include a sequence of "a tri-nucleotide such as ACG" and rejects the pending claims over Brennan.

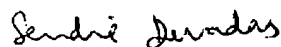
Brennan does not teach SEQ ID NO: 12 or any other features of the pending claims. Applicants request withdrawal of the §102(b) rejection.

**V. Conclusion**

Applicants believe that the amended claims are allowable and request that the pending claims be allowed. If there remains any unresolved issue, applicants request an interview if necessary.

No fees are believed due at this time, however, please charge any deficiencies or credit any overpayments to deposit account number 12-0913 with reference to our attorney docket number (21459-91513).

Respectfully Submitted,



Sendil K. Devadas  
Registration No. 52,425

Barnes & Thornburg LLP  
Suite 4400  
One North Wacker Drive  
Chicago, Illinois 60606-2809  
Phone: 312-214-8316  
Fax: 312-759-5646  
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